



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

**STATE OF NEVADA**  
Department of Conservation & Natural Resources

Brian Sandoval, Governor  
Leo M. Drozdoff, P.E., Director  
David Emme, Administrator

August 26, 2015

Mr. Brian Johnson  
Liability Business Manager  
Atlantic Richfield Company  
201 Helios Way  
Houston, TX 77079  
[brian.s.johnson@bp.com](mailto:brian.s.johnson@bp.com)

Mr. Steve Dischler  
President and CEO  
Singatse Peak Services, LLC  
517 West Bridge Street, Suite A  
Yerington, NV 89447  
[sdischler@quatterra.com](mailto:sdischler@quatterra.com)

RE: Anaconda/Yerington Mine Site  
Operable Unit 8 – Arimetco Facilities

Dear Brian and Steve:

This letter follows up on recent communications between the Nevada Division of Environmental Protection (NDEP), Atlantic Richfield Company (ARC) and Singatse Peak Services (SPS) concerning longer term solutions for the Arimetco Operable Unit (OU-8) at the Anaconda/Yerington Mine Site (Site). NDEP has evaluated the proposals and conditions from ARC and SPS on options for managing OU-8 into the future. NDEP is now proposing for your consideration a settlement framework that includes ARC and SPS participation with NDEP on a phased long term solution for OU-8.

First, NDEP would like to acknowledge ARC and SPS for your support and efforts over the past several years to stabilize OU-8 conditions. Together with the Environmental Protection Agency (EPA), we have collectively taken steps to provide funding, upgrade and maintain fluid management systems, and analyze options for short term and long term management of OU-8.

These steps have been successful to date in managing OU-8. However, OU-8 operational data indicates that OU-8 pond evaporation and storage capacity has not kept pace with heap leach drain-down fluid volumes and generation of solid precipitates. Due to the impact of rainfall on fluid generation, it is not possible to predict with precision when existing pond capacity will no longer be adequate. Nonetheless, it is clear to NDEP that we need to make contingency plans now for a reliable way to manage drain-down fluids over the long term.

### **Options for Managing OU-8**

Several options for longer term management of OU-8 drain down fluids have been proposed and evaluated. Continuing to build additional evaporation pond capacity is not a long term solution since it does not directly address the sources of the capacity problem, drain-down fluid generation and accumulation of solid precipitates. Solutions in the May 2012 Draft Final Feasibility Study and April 2015 Conceptual Closure Plan included phased re-grading and capping of heaps to minimize rainfall infiltration, the traditional and accepted method for heap leach closure in Nevada.

SPS and ARC have indicated that a capping approach may be undone by, complicate, or even restrict potential mining re-use. The large scale of any realistic mining re-use of the OU-8 property and surrounding copper deposits is not likely to be significantly impacted by the phased OU-8 heap capping NDEP envisions. NDEP would work with any future mine operator to allow for re-mining while preventing migration of or unacceptable exposure to hazardous substances within OU-8. Also, realistic physical mining re-use of the land area within OU-8 is not likely to occur, if it does, for at least another 10 years. This is based on NDEP's past experience for how long it typically takes new mines to get through environmental and land use permitting processes on federal land in Nevada.

We can anticipate and take reasonable steps to preserve the option of mine re-use for managing OU-8. However, SPS has explained that the current stage-gated, prospective mine development plans are not any kind of guarantee of re-mining. With OU-8 fluid capacity decreasing, NDEP has a responsibility to put more definite plans in place for managing these fluids over the long term.

Enhanced evaporation as proposed by SPS may be a viable interim method for managing fluids without building additional pond capacity. However, the specific design configuration and operation of such a system associated with OU-8 fluids management have yet to be determined. The effectiveness of enhanced evaporation on heaps may be reduced by clogging of the distribution system, wind-blown migration of salts on top of heap, or reduction in heap fluid infiltration capacity on top of the heaps due to salt build up. Additional pilot testing is needed for enhanced evaporation to be considered reliable for OU-8.

In developing a comprehensive approach to managing OU-8, NDEP has considered the uncertainty in: OU-8 long term fluid capacity, the long term reliability of enhanced evaporation, and potential mine re-use schedule. NDEP is proposing to move forward now with phased heap leach capping for reliable long term fluid management while concurrently pilot testing enhanced evaporation. This will give us the opportunity to take advantage of a potentially more efficient option such as enhanced evaporation after it is fully vetted. At the same time we will be assuring that adequate capacity is available for managing fluids over the long term.

## **Funding Alternatives**

The next step to start this work on OU-8 is to identify a source of funding. To make OU-8 eligible for additional federal funding, the Site would need to be listed on the National Priorities List (NPL). For the reasons listed below, NDEP views managing the Site with private and state sources of funding and NDEP lead oversight as preferable to pursuing federal funding under continued EPA oversight.

1. **Defined Funding.** Listing a site on the NPL does not guarantee federal funding (see 40 Code of Federal Regulations Section 300.425(b)(2)). Securing private and state sources of funding would provide a more defined set of resources.
2. **Increased Certainty and Predictability.** While EPA has made progress guiding the technical aspects of the Site remedial investigations over the past 10 years, overall Site cleanup priorities and schedule are still unclear. Although NDEP has been communicating with EPA about the need for a change in Site management to an approach that is more rigidly focused on threshold critical path

issues and real progress on the ground, NDEP lead oversight would accelerate cleanup decision-making and action.

3. Additional Flexibility. Transition to a potential re-mining scenario requiring NDEP permitting and reclamation bonds will proceed more quickly with overall Site management already under NDEP lead. Once the site is listed on the NPL or a final remedy is selected under EPA oversight, formal deferral processes to re-mining could contribute to delays.
4. Community Acceptance. NDEP understands that local community opinion is divided on the specific issue of NPL listing. However, there is likely to be more general community acceptance for a solution that provides more defined funding, increased certainty and predictability for future Site work, and additional flexibility for economic opportunities.

In seeking options for alternative funding for OU-8, NDEP requested input from ARC and SPS on their respective interest in participating in OU-8 management. In response, ARC and SPS have each provided their perspective on OU-8 work and expressed willingness to contribute to funding and management of OU-8, under specific limited conditions. SPS sent a June 29, 2015 letter and ARC provided a letter dated June 30, 2015.

While NDEP is encouraged by these expressions of interest in managing OU-8, they did not collectively add up to a reliable alternative to federal funding. First, the set of suggestions from SPS and ARC did not include a reliable longer term solution for OU-8. Furthermore, the suggestions from SPS and ARC were not entirely consistent with each other. For example, while ARC requested its FMS obligations be terminated as a condition of any larger contribution by ARC to OU-8, SPS did not discuss how ARC's current FMS obligations would be handled. Instead SPS requested EPA and NDEP to seek ARC contribution to the proposed enhanced evaporation project, apparently assuming that ARC would agree to continue with its current FMS obligations. Although enhanced evaporation was the centerpiece of SPS's solution, ARC's proposal did not speak to enhanced evaporation project feasibility or ARC willingness to participate in this project.

### **Proposed Settlement Framework**

In an effort to exhaust alternatives to listing the site on the NPL, NDEP has developed basic terms of an overall OU-8 and Site settlement framework for ARC and SPS to consider. This framework contemplates ARC and SPS contributing beyond what was included in your recent communications, but only as necessary to accomplish what is needed to address OU-8 comprehensively. For purposes of this settlement framework we considered the key initial matters to be: the scope of work, sequence and schedule of critical activities, and individual funding and work contributions from ARC, SPS, and NDEP.

At the same time, NDEP acknowledges ARC's positions with respect to OU-8 liability and OU-8 potential contribution to groundwater contamination in OU-1. NDEP also acknowledges SPS's position on OU-8 liability. However, since what we are proposing is a voluntary settlement, NDEP does not consider coming to up front agreement on these complex liability issues as critical at this stage. Instead, NDEP is interested in determining the possibility of coming to conceptual agreement with SPS and ARC on the key initial matters we have outlined.

NDEP's proposal consists of three components:

- 1) an agreement between ARC and NDEP for work to be funded and performed by ARC and NDEP on OU-8 and by ARC on the rest of the Site Operable Units 1 through 7 with NDEP lead regulatory oversight;
- 2) an agreement between SPS and NDEP for work to be funded and performed by SPS on OU-8 with NDEP lead regulatory oversight; and
- 3) a Memorandum of Agreement (MOA) between EPA and NDEP that transfers lead regulatory oversight responsibility for the Site to NDEP, defers NPL listing, and describes conditions and schedule for EPA to re-engage in site activities prior to re-initiating the NPL listing process as a contingency.

NDEP has included a combined set of proposed terms for agreements with ARC and SPS in the attached outline. NDEP envisions these terms would be memorialized in two separate parallel agreements between NDEP and each of the companies. The work included in the agreements would complement each other.

NDEP proposes execution of the MOA between NDEP and EPA as a pre-condition to entering into these agreements. NDEP also suggests that existing EPA orders with ARC be terminated or that the schedule of compliance be placed into some type of tolling agreement. NDEP does not suggest that any other EPA covenants or approvals be provided.

NDEP requests ARC and SPS responses to this letter by September 24, 2015. We request that your response state clearly whether or not your individual companies are prepared to commit to negotiating on the specific funding and work obligations contemplated in NDEP's outline.

In closing, NDEP acknowledges the efforts and support from ARC and SPS to stabilize OU-8 conditions over the past several years and we appreciate your continued engagement in seeking and potentially contributing to longer term solutions for this part of the Site.

Sincerely,



Greg Lovato  
Deputy Administrator

Attachment: Outline of NDEP Settlement Proposal Terms

cc: (via e-mail)

NDEP - Dave Emme, Jeff Collins, Rebecca Bodnar, Jeryl Gardner  
Nevada Office of the Attorney General - Jasmine Mehta

ARC - Patricia Gallery, Jack Oman, Ron Halsey, James Lucari, Adam Cohen (DG&S)

SPS - Tom Patton, Taurus Massey, Carla Consoli (LR&R)

EPA Region 9 - Enrique Manzanilla, Angeles Herrera, Harold Ball, Dave Seter, Dante Rodriguez,  
Dustin Minor, Andrew Helmlinger

## Outline of NDEP Settlement Proposal Terms

Note: Cost information provided in parentheses below is for general comparison and reference purposes and is not intended to cap or limit proposed obligations.

### 1. OU-8 - Arimetco

#### a. Fluid Management System Operation, Maintenance and Reporting Requirements

- i. ARC continues to fund and operate OU-8 FMS, bird deterrence, and site security with exception of Enhanced Evaporation component until draindown from all HLPs is continuously below 2 gallons per minute (gpm) for 6 months. (\$600,000 per year [based on information from ARC on FMS O&M costs since 2012.] NDEP anticipates that capping of Phase IV VLT and Slot heaps listed below by 2018 may reduce draindown to below 2 gpm.)
- ii. Near term O&M – Phase III Ditch and Ponds B&C liners. (Costs to be determined)
  1. ARC funds and performs work.
- iii. Enhanced Evaporation Component. (April 2013 report by SRK for SPS estimated ~\$100K capital and \$50K O&M/year.)
  1. SPS proposes a pilot workplan and schedule to NDEP by March 2016
  2. SPS funds and implements in 2016 and 2017 in accordance with approval or amendments provided by NDEP
  3. SPS reports on Enhanced Evaporation on a semi-annual basis
- iv. When draindown is below 2 gpm for 6 months, SPS or their successor funds and operates FMS, including maintenance and reporting bird deterrence and site security as long as they are landowner. Otherwise AR continues to fund and operate FMS. (Costs to be determined.)

#### b. OU-8 Remedy Selection and Schedule

- i. NDEP to follow decision process consistent with NCP so that state funds expended can count towards state cost share if site is eventually listed on NPL.
- ii. NDEP completes FS and Proposed Plan in 2016, after a season of Enhanced Evaporation pilot.
- iii. 2017 - NDEP completes ROD and Remedial Design for Phased Remedy implementation.
- iv. NDEP Staff and contractor costs associated with OU-8 regulatory and technical oversight and remedy selection funded 50/50 by ARC and SPS. (Estimated at \$200K per year - \$100K each. This is separate from funds provided as part of OU-8 Phase I and Phase II Closure listed in items 1.c and 1.d below.)

#### c. OU-8 Phase I Closure. (Costs estimated at \$8.5 million based on April 2015 Conceptual Closure Plan [CCP] by SRK for NDEP.)

- i. Elements to include Phase IV VLT capping and associated stormwater routing, borrow source development and stormwater pond construction, and EPA 4 acre pond closure in place.

- ii. Funding
      - 1. ARC 90% (\$7,650,000)
      - 2. NDEP 5% (\$425,000)
      - 3. SPS 5% (\$425,000)
    - iii. Schedule – NDEP hires contractor to complete in 2017
  - d. OU-8 Phase II Closure. (Costs estimated at \$6.5 million based on April 2015 CCP)
    - i. Elements to include Phase IV Slot capping and associated stormwater routing, borrow source development and stormwater pond construction
    - ii. Funding
      - 1. ARC 90% (\$5,850,000)
      - 2. NDEP 5% (\$325,000)
      - 3. SPS 5% (\$325,000)
    - iii. Schedule – NDEP hires contractor to complete in 2018
  - e. Future Closure Phases. (Costs estimated at \$15 million based on April 2015 CCP)
    - i. NDEP to evaluate timing and necessity in 2018 based on performance of Enhanced Evaporation and capping, make a determination to:
      - 1. Continue with SPS providing O&M support if FMS fluids management is sustainable at lower flow rates.
      - 2. Defer to re-mining if permit application is submitted; OR
      - 3. Petition to NPL – decision to be made in late 2018
    - ii. No additional AR funding
    - iii. No additional SPS funding beyond FMS O&M unless deferred to re-mining
2. OU-1 – Sitewide Groundwater
- a. Completion of OU1 RI/FS for on-site groundwater by ARC under NDEP oversight in 2016
  - b. In 2017 NDEP will prepare a ROD for on-site groundwater including specific metrics for detecting plume migration and defer off-site groundwater ROD
  - c. Remedy construction and O&M by ARC on schedule TBD
  - d. Off-site groundwater will be monitored and re-evaluated on a 5 year interval as effectiveness of source area mitigation in OU-4 and on-site groundwater actions are evaluated
3. OU-4 – Sulfide Tailings and Evap ponds
- a. Completion of OU4a RI/FS by ARC under NDEP oversight in 2016
  - b. In 2017 NDEP will prepare ROD for OU-4a
  - c. Remedy construction on schedule TBD by ARC
4. OU-7 – Wabuska Drain
- a. Completion of RI/FS by ARC under NDEP oversight with a phased approach per schedule TBD
  - b. NDEP to prepare ROD on schedule TBD
  - c. Remedy construction and O&M by ARC on schedule TBD

5. OU-3 Process Areas
  - a. Completion of RI/FS by ARC under NDEP oversight per schedule TBD
  - b. NDEP to prepare ROD on schedule TBD
  - c. Remedy construction and O&M by ARC on schedule TBD
6. Other OUs and remainder of OU-4
  - a. Schedule TBD
  - b. NDEP to prepare ROD on schedule TBD
  - c. Remedy construction and O&M by ARC on schedule TBD
7. AR funds 100% of NDEP staff and contractor regulatory and technical oversight costs for OUs 1 through 7. (Estimated at \$500K/year.) As noted in item 1.b.iv. above, ARC would also provide 50% of NDEP staff and contractor regulatory and technical oversight costs for OU-8.